ZUSSER, A., insh.

The PKU-70 mobile boiler unit. Stroitel' no.9:11 S '59. (MIRA 13:3)
(Boilers)

ZUSSER, A.P., inzh.

Equipment for constructing buildings by the method of lifting.
Mekh. stroi. 17 no.11:10-13 N '60. (MIRA 13:11)
(Precast concrete construction)
(Hydraulic jacks)

ZUSSER, A.P.; IOFFE, M.I.

Constructing buildings by the method of lifting stories.
Prom.stroi. 38 no.4:32-38 '60. (MIRA 13:8)

1. Trest No.19 Glavleningradstroy (for Zusser).
2. Lengiprogor (for Ioffe).
(Precast concrete construction)

ZUSSER, A.P., inzh.

Using the method of progressive lifting of stories in constructing apartment houses. Biul. tekh. inform. po stroi. 5 no.6:10-12 Je '59. (MIRA 12:10)

(Apartment houses) (Hydraulic jacks)

TYSHKEVICH, Yu.I., inzh.; ZUSSER, A.P., inzh.

Heating and drying unfinished buildings. Biul.tekh.inform. 5
no.1:25-26 Ja '59. (MIRA 12:4)
(Building—Cold weather conditions) (Drying apparatus)

ZUSSER, A.P., inzh.; LAZEBNIKOV, M.B.; KUBAREV, G.N.

Using tipping forms in making precast reinforced concrete fences [Suggested by A.P.Zusser, M.B.Lazebnikov, G.N.Kubarev] Rats. i izobr. predl. v stroi. no.6:30-32 '58. (MIRA 11:10)
(Fences) (Concrete construction--Formwork)

GAL'PERIN, L.Yu.; ZUSSER, A.P.; IOFFE, M.I.; MINTS, V.M.; SIZOV, A.A.; STAROVOYTOV, I.F., red. izd-va; PUL'KINA, Ye.A., tekhn. red.

[Experience in the design and erection of buildings by elevating the stories]Opyt proektirovaniia i montazha zdanii metodom pod"ema etazhei. Leningrad, Gosstroiizdat, 1962. 147 p. (MIRA 15:8)

(Precast concrete construction)
(Hoisting machinery)

ZUSSER, S.G.

[Black Sea bonito] Chernomorskaia pelamida. Moskva, Pishchepromizdat, 1949. 59 p. (MIRA 13:9)
(Bonito) (Black Sea--Fisheries)

ZUSSER, S.G., kand.biol.nauk

Diurnal vertical migrations of pelagic fishes. Trudy VNIRO 36: 83-105 '58. (MIRA 12:4)

(Fishes—Migration)

ZUSSER, S.G., kand.biol.nauk

Studying causes of diurnal vertical migrations in fishes. Trudy sov. Ikht.kom. no.8:115-120 '58. (MIRA 11:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii.
(Fishes--Migration)

ZUSSER, S.G.

Review of the book "Problems of fish ecology". Vop. ikht. 3 no.2:421-424 '63. (MIRA 16:7)

(Fishes)

ZUSSER, S. G.

"The Criticism on the Application of the Theory of Tropism in the Study of Fish Behaviour." (p. 131) by Zusser, S. G.

SO: Journal of General Biology (Zhurnal Obshchey Biologii) Vol. XIV, No.2, March-April, 1953.

1. ZUSSER, S.G.

2. USSR (600)

4. Fishes

7. Criticism of the application of the theory of tropism in the study of the behavior of fishes, Zhur.ob.biol. 14 no. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

ASLANOVA,N.Ye.; BOGOROV,V.G.; ZUSSER,S.G.; KLENOVA,M.V.; STAROSTIN,A.D.

Scientific and technical research of I.I.Mesiatsev. Trudy Gidrobiol.ob-va no.6:17-22 '55. (MLRA 8:9)
(Mesiatsev, Ivan Illarionovich, 1885-1940)

cA

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

The utilization of intestinal slime. E. B. Zuman. *Udobrenie i Urozhai* (Fertilizer and Crops) 3, 463-6(1931).—The products obtained in cleaning intestines contain 45-65% of protein and 8-15% of fat. It may give a fertilizer contg. 11% N and 2-2.5% P_2O_5. In working over the available supply of intestines in the various industrial plants it was calcd.—on the basis of 70% efficiency—that close to 3000 tons of a dry product can be obtained either for fertilizer or for feeding of cattle and poultry. The best method of working over the material is to boil it; the protein ppt. and the supernatant liquid is poured off. It can be used in this condition immediately, even though it contains as high as 75% H_2O. If storage is required the material has to be dried, in which case a powder forms. Hog and sheep intestinal slime is not fit for cattle feed. It must be used for fertilizers. In this case the sediment after boiling is mixed with powd. peat and dried.

J. S. Joffe

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

ZUSSER, Ye. Ye.

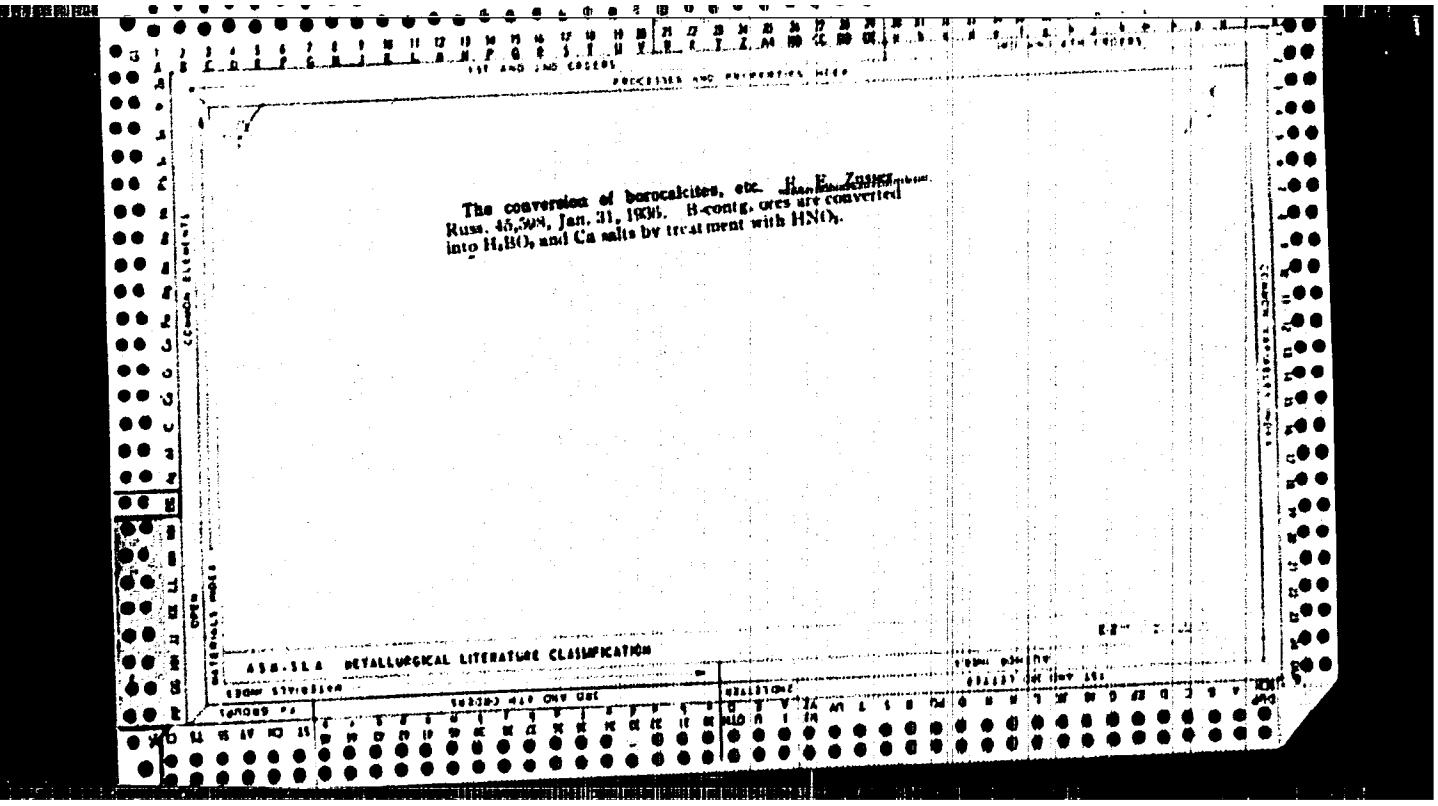
Co

PROCESSES AND PROPERTIES INDEX

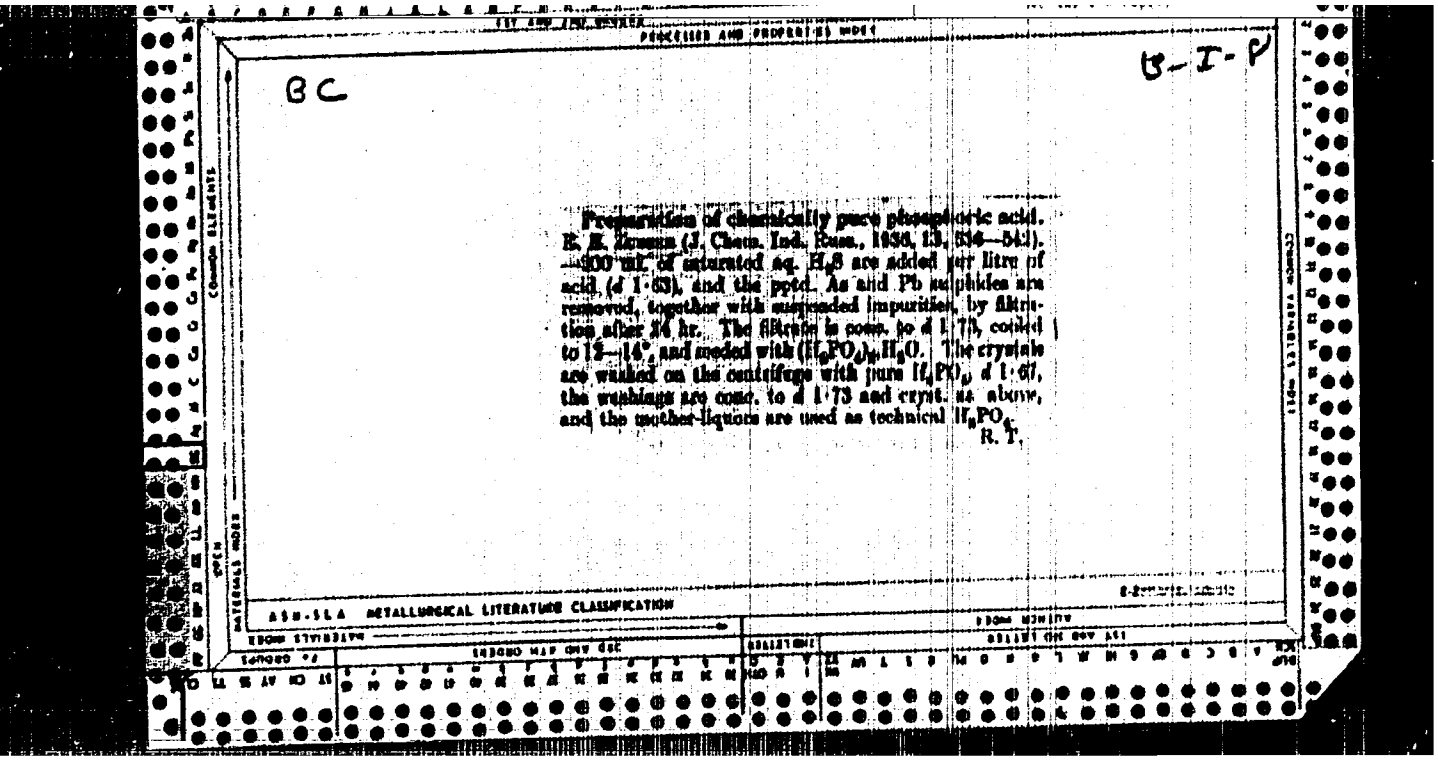
Conversion of organic industrial waste into fertilizers. E. E. Zusser. *Udobrenie i Urozhai* (Fertilizers and Crops) 3, 354-64(1931).—Leather autoclaved under pressures of 1.5-7 atms. for 1 to 4 hrs. without some strong reagent does not decompose in the soil. Soaking the leather in 6% H_2SO_4 for 48 hrs. and then autoclaving with 3% H_2SO_4 under 2.0 to 2.5 atms. pressure at 134-140° gives a product which is easily mineralized in the soil. The fertilizer thus obtained has a N content of 7.5 to 8.5%, slightly lower than the original leather. By autoclaving with NH_3 for 4 hrs. at 135-140° a fertilizer is obtained which is easily mineralized and gives very good results as a source of N. Only 2% by weight of the leather is the proper amt. of NH_3 to use. It gives a product with 11-12% N. It is pointed out that expts. have shown that by the NH_3 method old shoes, wool waste, hair and many other org. industrial waste products may be converted into valuable N fertilizers.

J. S. Joffe

ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION



APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R002065620014-5"



BC

B-I-P

Preparation of chemically pure phosphoric acid. R. H. Zimmer (J. Chem. Ind. Russ., 1936, 13, 536—541). 100 ml. of saturated aq. H_2S are added per litre of acid (d 1·63), and the ppte. As and Pb sulphides are removed, together with suspended impurities, by filtration after 24 hr. The filtrate is conc. to d 1·75, cooled to 12—14°, and seeded with $(H_3PO_4)_2.H_2O$. The crystals are washed on the centrifuge with pure H_3PO_4 d 1·67, the washings are conc. to d 1·75 and cryst. as above, and the mother-liquors are used as technical H_3PO_4.

R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Ch

18

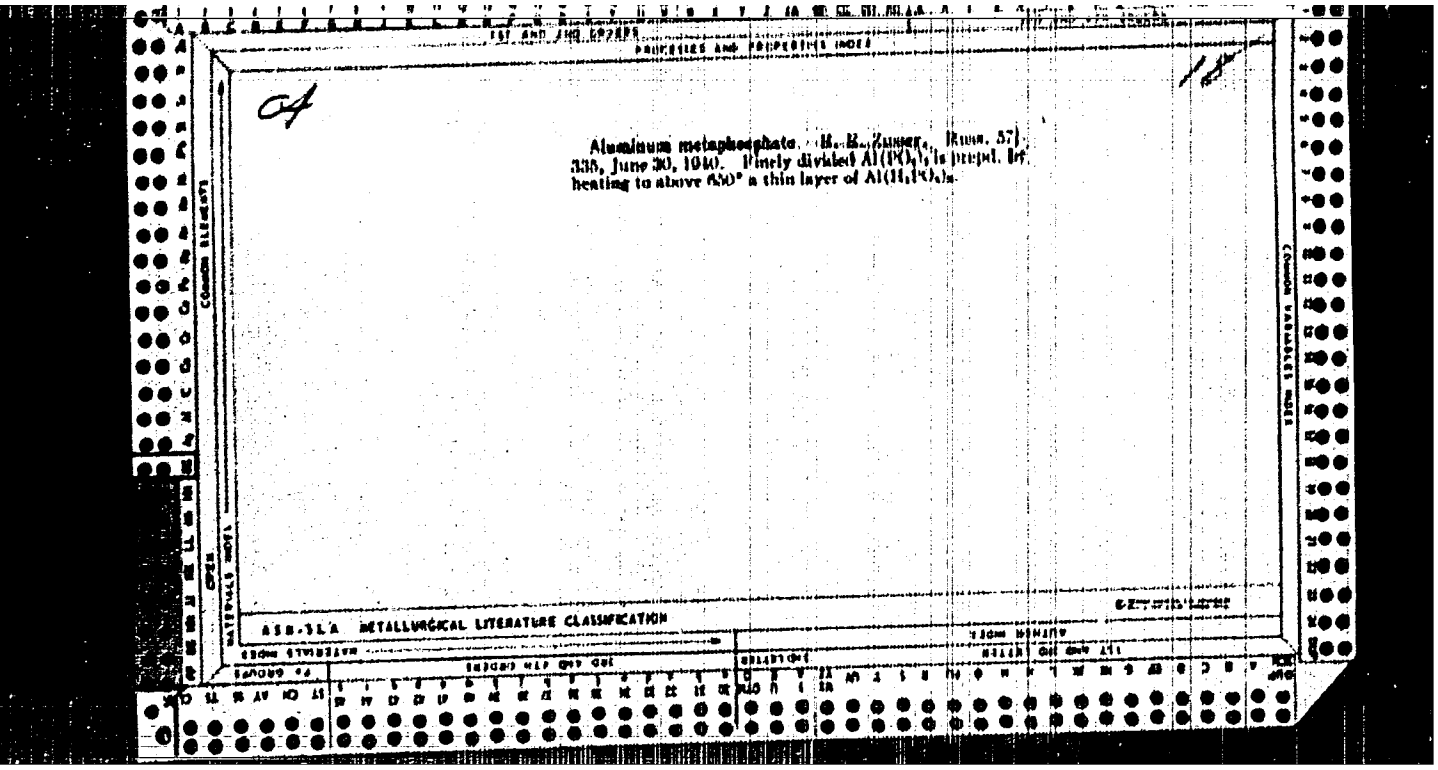
Obtaining chemically pure phosphoric acid. [illegible] Zusser. *J. Chem. Ind.* (Moscow) 13, 536-42(1936). Tech. acid is treated with a satd. aq. soln. of H_2S to ppt. As and Pb, filtered, concd. to a sp. gr. of 1.73 and crystd. at 12-14°. The crystals are centrifuged and washed with pure H_3PO_4. H. M. Leicester

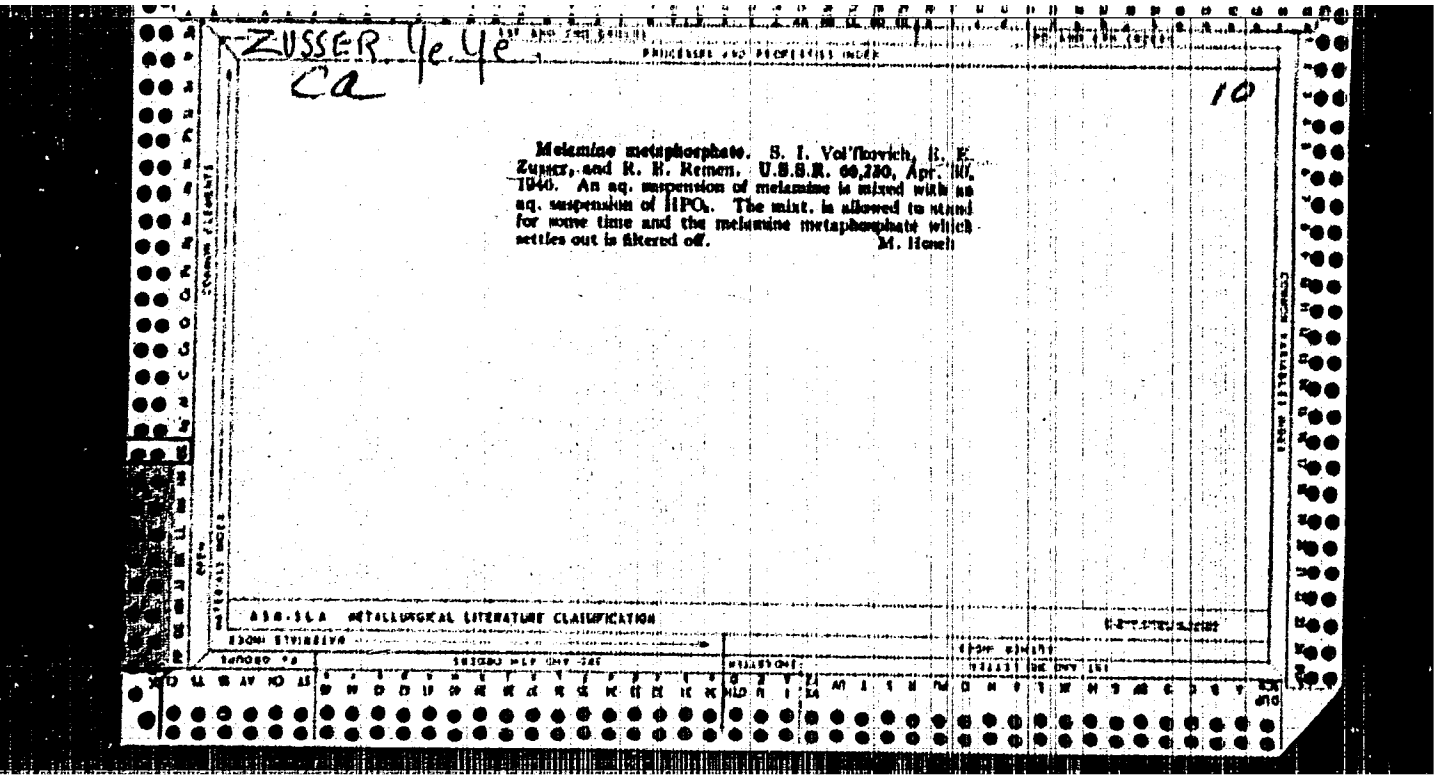
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

Determination of small amounts of iron in boric acid and borax with sulfosalicylic acid. E. E. Zuhar(?), *Zavodskaya Lab.* 8, No. 10-11, 1183-3(1939); *Khim. Referat. Zhur.* 1940, No. 4, 51.—H_3BO_3 and borax have no effect on the reaction between Fe and sulfosalicylic acid. In-
stead of the usual 10% NH_4OH soln. (used for colorimetric detn. of Fe with sulfosalicylic acid), Z. proposes to use NH_4OH to which some alc. α-naphtholphthalein is added (to 4 cc. of 0.1% alc. α-naphtholphthalein add 10% NH_4-
OH to make 100 cc. of soln.). Adding α-naphtholphtha-
lein to NH_4OH produces a blue color. The blue color when mixed with yellow (obtained from the reaction of Fe with sulfosalicylic acid in alk. soln.) produces various shades, from blue to yellow-green, which are easily dis-
tinguishable either in daylight or under artificial illumina-
tion. For the detn. dissolve 0.5-1.0 g. of H_3BO_3 in a gradu-
ated test tube with heating in 8 cc. of water and bring the vol. to 10 cc.; transfer the soln. to a 50-cc. Erlen-
meyer flask, add 5 cc. of 10% sulfosalicylic acid and 5 cc. of 10% NH_4OH colored with α-naphtholphthalein. To compare the colors, prep. aq. solns. contg. various amts. of Fe + 5 cc. of 10% sulfosalicylic acid + 5 cc. of 10% NH_4OH colored with α-naphtholphthalein. To det. Fe in borax, acidify the soln. with H_2SO_4 before adding sulfo-
salicylic acid and NH_4OH. W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION





ZUSSER Ye.Ye
Ca

10

Melamine metaphosphate. S. I. Vol'fkovich, E. E. Zusser, and K. B. Remen. U.S.S.R. 60,230, Apr. 30, 1940. An aq. suspension of melamine is mixed with an aq. suspension of HPO_3. The mixt. is allowed to stand for some time and the melamine metaphosphate which settles out is filtered off. M. Hewitt

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Melamine phosphates. S. I. Vol'fkovich, E. E. Zusser, and R. E. Remen. *Bull. acad. sci. U.R.S.S., Classe sci. chim.* 1946, 571–9.—The metaphosphate was prepd. by a new method, termed the "suspension method," in a reaction between solid melamine, $C_3H_6N_6$ (I), and solid HPO_3 in suspension in H_2O. This method permits considerable reduction of the vol. of the app. and economy of operations; also, hydration of solid HPO_3 is slow, hence there is a smaller amt. of other phosphates in the product. A mixt. of 10 parts by wt. of I with 18 parts "HPO_3" (solid, contg. 67.5% P_2O_5 and about 40% salts, mainly $NaPO_3$) and 200 ml. H_2O, gave in 1 hr., at 30, 60, and 80°, a product with a soly. of 0.25, 0.23, and 0.30%, resp.; the yield of $I.HPO_3$ was 1.5–1.6 wt. parts per 1 part I. The solid product obtained in suspension filtered readily and could be washed about 10 times faster than that obtained in soln. with chemically pure HPO_3; the product was difficult to filter and to wash. The optimum drying temp. is 45–50°; a higher drying temp. or prolonged drying impairs the quality of the product in the sense of lowering the P_2O_5 content and increasing the soly., owing to partial conversion to orthophosphate. On standing above H_2O at 20°, the increase of wt. was 14–15 and 60–70%, resp., in 7 and 20 days, and the soly. rose to 0.74%. Synthesis from I and $(NaPO_3)_3$ gave poorer yields and poorer quality (higher soly.). The pyrophosphate was synthesized by 2 methods, either by producing first the orthophosphate from H_3PO_4 and I in suspension or in soln. and heating at 250–70°, or by direct reaction of I with $Na_4P_2O_7$ in soln. and pptn. with an acid. The $I.H_3PO_4$ obtained in the 1st method was easily filtered and washed with cold water, dried at 100–120°, and converted to $2I.H_4P_2O_7$ at 250–70°; the product contained 83% P_2O_5 and its soly. at 20° was not over 0.1%. By the 2nd method, using 9–18 g. $Na_4P_2O_7$ per 5 g. I, the best products (soly. 0.07–0.16%) were obtained by pptn. with HCl or HNO_3; pptn. with H_3PO_4 gives more highly sol. products, and requires greater expenditure of acid. The best filterability is obtained at about 0.040–0.040% HNO_3 in the pulp, and an optimum stirring rate of 60–80 r.p.m. The pyrophosphate is best dried at above 100°. Variations of the soly. of the different products are due to the presence of varying amts. of the other phosphates. The solubilities of the individual phosphates, at 20° and 100°, are: $I.HPO_3$ 0.09 and 1.00%; $I.H_3PO_4$ 0.35 and 2.04%; $2I.H_4P_2O_7$ 0.00 and 0.54%. In the order of decreasing hygroscopicity, the gain of wt. after 17 days over H_2O at 17° was: $I.HPO_3$ 31.0%, $I.H_3PO_4$ 7.0%, $2I.H_4P_2O_7$ 2.1%. $I.HPO_3$ appears on microscopic examn. as a microcryst. aggregate, $n(av.) \sim 1.640$. $2I.H_4P_2O_7$ forms fine orthorhombic plates or needles, the former with n_p 1.483, n_g 1.712, the latter 1.535, 1.721. $I.H_3PO_4$ forms thin monoclinic plates, n_p 1.476, n_g 1.725. N. Thon

ZUSSER, Y. Y.

"The Melamine Phosphates," Iz. Ak. Nauk SSSR, Otdel, Khim. Nauk, No. 6, 1946.

Mbr., Sci. Res. Inst. Insecticides and fungicides, im. Ya. Y. Samoylor, -1946-.

5(1)

AUTHOR: Zusser, Ye. Ye.

SOV/64-59-2-17/23

TITLE: On the Changes in Soluble Orthophosphates Contained in Superphosphates During the Drying Process (Ob izmeneniyakh rastvorimykh ortofosfatov, soderzhashchikhsya v superfosfatakh, v protsesse sushki)

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 2, pp 177-180 (USSR)

ABSTRACT: In order to examine the assumption that at a temperature increase (120-150°) phosphoric acid contained in superphosphate (I) passes to a form insoluble in water or to a dehydrated of the phosphates, experiments were made concerning the chemical changes of (I), as well as the change of the water-soluble and bound P_2O_5 content as dependent on the drying temperature. The author used granulated (I) obtained from apatite or phosphorite (from Kara Tau), which was neutralized with limestone or ammonia or left unneutralized. The drying process took two hours at 80, 105, 125, 150, 175, 200, and 250°. The experimental results (Table 1) show that at increased drying temperature the amount of bound and water-soluble P_2O_5 was considerably reduced in all samples, the ratio

Card 1/3

On the Changes in Soluble Orthophosphates Contained in Superphosphates During the Drying Process

SOV/64-59-2-17/23

P_2O_5 free: P_2O_5 total gradually increases and attains a maximum at 125-175° (Fig 1). Some considerations are made concerning the chemical properties of monocalcium phosphate, and on the basis of data of the equilibrium system CaO - P_2O_5 - H_2O (Table 2) the author determined the optimum ratio between P_2O_5 and the (I) - humidity, at which no $CaHPO_4$ insoluble in water is precipitated at a given temperature. Soluble salts of pyrophosphoric acid may be observed in (I) dried at about 105°. Determinations of the salt content of dehydrated phosphoric acids in the part of (I) insoluble in water were carried out, and it was found (Table 4) that in the preparation of a water extract for the determination of P_2O_5, besides soluble orthophosphates, also salts of other dehydrated forms are dissolved. By boiling them with hydrochloric acid or nitric acid the latter may be hydrated and passed to orthophosphates. Only then the entire P_2O_5 content was

Card 2/3

On the Changes in Soluble Orthophosphates Contained in Superphosphates During the Drying Process

SOV/64-59-2-17/23

determined from the combined water extracts according to the citrate method. There are 2 figures, 4 tables, and 16 references, 4 of which are Soviet.

ASSOCIATION: Nauchnyy institut po udobreniyam i insektofungitsidam imeni Ya. V. Samoylova (Scientific Institute for Fertilizers and Insectofungicides imeni Ya. V. Samoylov)

Card 3/3

ZUSSER, Ye.Ye., kand. khim. nauk; BELOKON', L.M., kand. khim. nauk

Continuous flow system of the production of double superphosphate using a small amount of the return product.
Khim. prom. no.5:336-338 My '63. (MIRA 16:8)

ZUSSER, Ye. Ye., kand. khimicheskikh nauk

Methods without drying used in manufacturing granulated superphosphates. Zhur. VKHO 7 no.5:530-534 '62.
(MIRA 15:10)

(Phosphates)

ca

25

Dyeing linen fabrics with fast dyes. M. N. Zonstman and A. N. Dubova. *L'no-Pen'kodzhutovaya Prom.* 7, No. 3, 66-71(1937); *Chem. Zentr.* 1938, I, 3590.—Results of dyeing with indanthrene dyes and with the dyes Fast Aloes GG, Fast Orange GR, etc., + Naphthol AS-G, Naphthol AS, etc., are reported. M. G. Moore

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

GOFMAN, I.L.; ZUSSER, Ya.Ye.; TSYRLIN, D.L.; SHMEESHEVSKIY, A.I.

Developing the technology of granulated superphosphate production.
Trudy NIUIF no.157:7-60 '55. (MIRA 9:9)
(Phosphates)

VANAG, G.[Vanags, G.](Riga); DUMPIS, T.(Riga); ZUTERE, L.(Riga)

2-aminobenzylindandione-1,3. Vestis Latv ak no.6:73-80 '60.
(EEAI 10:9)

1. Akademiya nauk Latviyskoy SSR, Institut organicheskogo sinteza.

(Benzylindandione) (Amino group)

30639
S/081/61/000/020/040/089
B140/B110

5.3300

AUTHORS: Mamedaliyev, Yu. G., Zutikova, O. A.

TITLE: Alkylation of β-methyl decalin

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 159 - 160, abstract 20Zh79 (Azerb. khim. zh., no. 6, 1960, 15 - 20)

TEXT: The optimum conditions for the alkylation of trans-β-methyl decalin (I) with propylene (II) in the presence of H_2SO_4 were found to be 30-35 °C, an H_2SO_4 concentration of 98 - 100%, molar ratios of H_2SO_4:I:II = 2:1:1, and a flow rate of II of 4 liters/hr. Under these conditions, the alkylate contained 16 - 17% trans-β-methyl isopropyl decalin (b. p. 252°C, n_D^{20} 1.4740, d_4^{20} 0.8718). I (n_D^{20} 1.4700, d_4^{20} 0.8690) was obtained by hydrogenating β-methyl naphthalene above a nickel catalyst at 180 - 200°C and atmospheric pressure. Subsequently, the catalyzate was treated three times with 100% H_2SO_4 and finally with a weak lye and water. [Abstracter's note: Complete translation.]

Card 1/1

15

6

Production of asphaltic bitumen from an Edeleanu extract. Matija Krajinović, Boris Prohaska, Dušan Žutić and Zdenka Krokar (Univ. Zagreb). *Nafta* (Yugoslavia) 8, 203-6(1957).—An Iraq solvent-refined lubricating-oil Edeleanu ext., previously freed of the fraction distg. up to 250°, was converted into asphaltic bitumen by air-blowing in the presence of 1% P_2O_5. N. Hlavić

14

ENDZELINS, J., akademik; SOKOLS, E., otv. red.; BENDIKS, H., red.; DAMBE, V., red.; GRABIS, R., red.; ZUTIS, J., red.; OSINS, E., tekhn. red.

[Place names in the Latvian S.S.R.] Latvijas PSR vietvardi. Riga, Latvijas PSR Zinatnu akad. izdevnieciba. Pt.1., Vol.2. K - O. 1961. 505 p. (MIRA 15:3)
(Latvia--Names, Geographical)

1. ZUTIS, J., Prof.

2. USSR (600)

4. History--Riga

7. Origin and development of Riga during feudalism. Latv. PSR Zin. Akad. Vestis no. 12 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. ZUTIS, J., Prof.

2. USSR (600)

4. Historiography--Latvia

7. Importance of I. V. Stalin's works on linguistics for the development of historical science of the Latvian S. S. R. Latv. PSR Zin. Akad. Vestis no. 6 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. ZUTIS, J., Prof.

2. USSR (600)

4. Latvia - Historiography

7. Importance of I. V. Stalin's works on linguistics for the development of historical science of the Latvian S.S.R. Latv. PSR Zin Akad Vestis No. 6 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. ZUTIS, J., Prof.

2. USSR 600

4. Riga - History

7. Origin and development of Riga during feudalism, Latv. PSR Zin. Akad Vestis, No. 12, 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. ZUTIS, J., Prof.

2. USSR (600)

4. Stalin, Josif, 1879-1953

7. Importance of I. V. Stalin's works in the field of linguistics for the development of historical science of the Latvian S.S.R., Latv. PSR Zin. Akad. Vestis, No. 6, 1951.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

DRIZULIS, A. kand.ist.nauk.

Monumental study ("Baltic problem in the 18th century." J.Zutis. Reviewed by A. Drizulis). Latv.PSR Zin.Akad.Vēstis no.2:141-144 '52. (MLRA 6:6)
(Baltic Provinces - History) (Zutis, J.J.)

BUDNIK, G.I., kand.ekon.nauk; AVDAKOV, Yu.K., dotsent, kand.ekon.nauk; SARYCHEV, V.G., kand.ekon.nauk; PREOBRAZHENSKIY, A.A., kand. istor.nauk; AVDAKOV, Yu.K., dotsent, kand.ekon.nauk; POLYANSKIY, F.Ye., prof., doktor istor.nauk; ZUTIS, Ya.Ya. [Zutis, J.]; GULANYAN, Kh.G., prof., doktor ekon.nauk; GULANYAN, Kh.G., prof., doktor ekon.nauk; KONYAYEV, A.I., dotsent, kand.ekon.nauk; KHROMOV, P.A., prof., doktor ekon.nauk; SHALASHILIN, I.Ye., dotsent, kand.ekon.nauk; SHEMYAKIN, I.N., dotsent, kand.ekon.nauk; POCHE-BIUSKIY, A.P., prof., doktor ekon.nauk; CHLOV, B.P., dotsent, kand. ekon.nauk; TYUSHEV, V.A., kand.ekon.nauk; BALASHOVA, A.V., kand. ekon.nauk; MOZHIN, V.P., kand.ekon.nauk; MINDAROV, A.T., dotsent, kand.ekon.nauk; SHIGALIN, G.I., prof., doktor ekon.nauk; GOLUBNI-CHIY, I.S., prof., doktor ekon.nauk; VOSKRESENSKAYA, T., red.; BAKOVETSKIY, O., mladshiy red.; MOSKVINA, R., tekhn.red.

[History of the national economy of the U.S.S.R.; lecture course] Istoriia narodnogo khoziaistva SSSR; kurs lektsii. Moskva, Izd-vo sotsial'no-ekon.lit-ry, 1960. 662 p. (MIRA 13:5)

1. Deystvitel'nyy chlen AN Latviyskoy SSR (for Zutis).
(Russia--Economic conditions)

SOV/30-58-10-16/53

AUTHOR: Zutis, Ya. Ya., Corresponding Member, AS USSR

TITLE: The Study of the History of Sea-Navigation and Maritime Trade (Izucheniye istorii moreplavaniya i morskoy torgovli)

PERIODICAL: Vestnik Akademii nauk SSSR, 1958, Nr 10, pp 81-83 (USSR)

ABSTRACT: From May 30 to 31 the Third International Conference took place in Paris. Half of the ten lectures given were devoted to the history of ship building and of navigation instruments. Western scientists reported on the development of sea-navigation and of maritime trade in the 16th to 18th centuries. M. Malovist, Professor of the University of Warsaw, remarked that in the 15th and 16th century Gdan'sk carried on an active timber and grain trade. The author of this article describes the role and importance of the seaport of Riga as a center of the flax and hemp trade. The Swedish historian K. G. Gildebrand partly using the work of Soviet historians noted that at the beginning of the 18th century Sweden assumed a leading position in iron exports in Europe. But already in the sixties of the 18th century she was surpassed by Russia. The next conference was scheduled for the year 1959 and is to be devoted to sea-naviga-

Card 1/2

SOV/30-58-10-16/53

The Study of the History of Sea-Navigation and Maritime Trade

tion and maritime trade in the East.

Card 2/2

ZUVENOK, L. I.

BUDYKO, M.I.; BERLYAND, T.G.; ZUBENOK, L.I.

Heat balance of the earth's surface. Izv. AN SSSR. Ser.geog. no.3: 17-41 My-Je '54. (MLRA 7:7)

1. Glavnaya geofizicheskaya observatoriya im. A.I.Voyeykova. (Atmospheric temperature) (Earth temperature)

MAMEDALIYEV, Yu.G.; ZUTIKOVA, O.A.

Alkylation of β-methyldecahydronaphthalene. Azerb.khim.zhur. no.6:15-20 '60. (MIRA 14:8)

(Naphthalene) (Alkylation)

MAMEDALIYEV, Yu.G.; ZUTIKOVA, O.A.

Alkylation of 2-methyldecalin. Dokl. AN Azerb. SSR 17 no.10:881-885 '61. (MIRA 14:12)

1. Institut neftekhimicheskikh protsessov AN AzSSR.
(Alkylation)
(Naphthalene)

SIVOLAPOV, V. G.; TORCHINSKIY, M. A.; GOL'DENBERG, I. B.; ZUTS, K. A.

Amount of heat contained in flue gases as pulse for the regulation of temperatures in open-hearth furnaces. Izv. vys. ucheb. zav.; chern. met. 7 no.6:179-183 '64. (MIRA 17:7)

1. Magnitogorskiy gornometallurgicheskiy institut.

VORONOV, F.D.; TRIFONOV, A.G.; KHUSID, S.Ye.; DIKSHTEYN, Ye.I.; VAL'PITER, E.V. - SNEGIREV, Yu.B.; ANTIPIN, V.G.; Prinimali uchastiye: SMIRNOV, L.A.; KAZAKOV, A.I.; YELIZAROV, A.G.; KULAKOV, A.M.; KOZHANOV, M.G.; ZARZHITSKIY, Yu.A.; ARTAMONOV, M.P.; GOL'DENBERG, I.B.; ROMANOV, V.M.; NOVIKOV, S.M.; MAYEVSKIY, A.B.; DMITRIYEV, I.; MANZHULA, M.; BEREZOVOY, I.A.; ZUTS, K.A.; BADIN, S.N.; TATARINTSEV, G.; MITROFANOV, N.G.; GAVRILOVA, K.M.; IVANOV, N.I.

Operating a 400-ton open-hearth furnace on casing-head gas. Stal' 20 no. 7:594-598 Jl '60. (MIRA 14:5)
(Open-hearth furnaces--Equipment and supplies)

S/133/61/000/003/002/014
A054/A033

AUTHORS: Dikshteyn, Ye. I.; Goncharevskiy, Ya. A.; Zuts, K.A.; Antipin, V. G.; Kozhanov, M. G.; Zarzhitskiy, Yu. A.; Kulakov, A. M.;

TITLE: Mastering the operation of a 500-ton open-hearth furnace fired by coke-oven gas and mazut

PERIODICAL: Stal', no. 3, 1961, 210 - 214

TEXT: The 500-ton open-hearth furnace designed by the "Stal'proyekt" operates according to the scrap-ore process and is fired by cold coke-gas (4100 cal/m^3) and mazut (9600 cal/kg). The principal data of the furnace are: charge 500 - 550 tons, hearth area 105 sq m, depth of the bath 1.2 m, height (over the altar level) of the crown 3.15 m, of the air partition 1.35 (1.2) m, of the burner axis 1.30 (1.6) m, useful volume of slag chamber 142 m^3, stack height 90 m. The results obtained by the furnace design and firing system could be improved by incorporating several modifications. For instance, there are two gas-mazut burners, one on either side of the furnace. This is a simple structural solution but did not prove very effi-

Card 1/5

Matering the operation of a .....

cient. By applying two or three burners on either side of the furnace this situation could be improved. The blast produced is not enough to ensure the heat conditions required. The vacuum produced by the stack and wasteheat boiler (60 and 75 mm water column, respectively)is inadequate to efficiently evacuate the gaseous combustion products from the operating area of the furnace. The efficiency of the blast system is unfavourably affected by losses in the cold-air exhaustion system through the slag chambers, which require a better insulation. The heat transfer capacity of the torch was also unsatisfactory. Carbon monoxide in the combustion products in the vertical channel already disappeared when there was 3 - 3.5 % oxygen present, indicating an inadequate mixing of fuel and air. In order to improve the mixing and radiation capacity of the torch, compressed air was introduced separately through a special tube. This, however, did not solve the problem and had to be put down to the wrong type of feed-opening. Tests were also carried out to raise the heating capacity of the torch by improving the operation of the pulverizer, by means of increasing its capacity, i.e., the consumption of high-pressure steam in the pulverizer. The radiation capacity of the torch for cold coke-gas and mazut depends largely on the ratio at which these two fuels are consumed. For the furnace in question the optimum

...tering the operation of a ....

condition for the torch was obtained when 1700 - 1800 kg/h mazut was consumed and when the thermal load of the furnace amounted to 40 mill. cal/h, (Fig. 6). Tests carried out to improve the furnace operation by increasing the heat load to 50 mill.cal/h only resulted in greater wear, without improving the operational conditions. Actual improvement was obtained by decreasing heat losses through the stoke holes, amounting to 2 mill.cal/h, by a suitable insulation and by feeding 1800 - 2000 Hm^3/h compressed air into the torch, thus increasing its temperature to 1850°C and distributing it more uniformly along the torch. By increasing the heating capacity of the torch, the time required for the optimum heating of the charge and for burning out carbon was reduced. By intensifying the thermal conditions of the furnace, desulfurization became more intensive and it was possible to smelt 08 kp (08kp) grade steel in the furnace. Although the reconstruction of the furnace and the application of modifications improved and stabilized the operation of the 500-ton mixed fuel furnace, the burner system will still have to be modified and a suitable method to be applied for preparing the gas, in order to change over from mixed fuel to gas-firing only. There are 9 figures and 2 tables.

Card 3/5

Mastering the operation of a ....

S/133/61/000/003/002/014
A054/A033

Figure 1: Gas-mazut burner of the 500-ton open-hearth furnace.

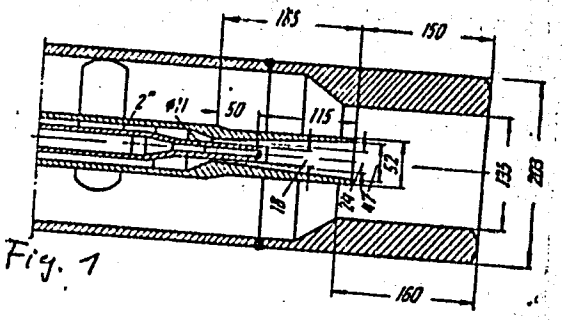
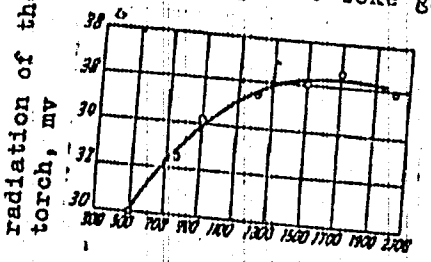


Fig. 1

Figure 6: Dependence of the radiation of the torch on the amount of mazut consumed (when firing also coke gas)



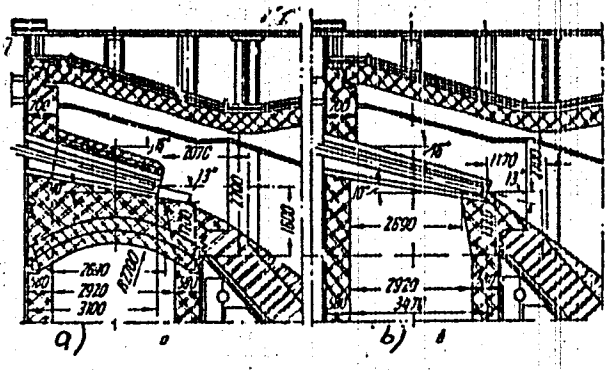
Mazut consumption, kg/h

Card 4/5

S/133/61/000/003/003/014
A054/A033

Mastering the operation of a ...

Figure 8: Change of the mazut burner structure
a) after reconstruction,
b) before reconstruction.



Card 5/5

ZUTS, Konstantin Aleksandrovich, dots., kand. tekhn. nauk; GOL'DENBERG, Iosif Borisovich, inzh.; SIVOLAPOV, Viktor Gordeyevich, inzh.

[Control of thermal conditions in open-hearth furnaces] Upravlenie teplovym rezhimom martenovskikh pechei. Moskva, Metallurgiia, 1964. 119 p. (MIRA 17:12)

VORONOV, F.D., inzh.; DIKSHTEYN, Ye.I.; ZUTS, K.A., kand.tekhn.nauk, dots.; TRIFONOV, A.G.

Converting a 400-ton open-hearth furnace to operation on sulfurous fuel oil. Stal' 12 no.2:112-116 F '59. (MIRA 12:2)

1. Magnitogorskiy metallurgicheskiy kombinat i Magnitogorskiy gornometallurgicheskiy institut.
(Open-hearth furnaces) (Petroleum as fuel)

Zuts, K.A.

137-58-5-9100

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 50 (USSR)

AUTHOR: Zuts, K.A.

TITLE: Injection Blowing in Open-hearth Furnaces (Inzhektornoye dut'ye v golovkakh martenovskikh pechey)

PERIODICAL: Sb. nauch. tr. Magnitogorskiy gorno-metallurg. in-t, 1957, Nr 11, pp 136-146

ABSTRACT: The process of supplying air into the gas aperture is described. Calculated data on the increase in exit velocity of the gas from a duct are presented for different values of air consumption; the increase in velocity was achieved by means of increasing the volume and temperature of the gas mixture under conditions of partial combustion of gas. The employment of an injector in 390-t furnaces at the Magnitogorsk Metallurgical Kombinat revealed the following facts: the temperature of the gas mixture, which initially was 1150°C when no air was supplied, increases to 1500° at an air consumption of 6000 m^3/hr; the temperature in the beginning of the flame increases by 40-60° at a rate of blowing equivalent to 4-6,000 m^3/hr; the duration of a heat process is reduced from 13 to 12 hours and 20 minutes by virtue of a reduction in time required for the smelting stage. G.G.

Card 1/1

1. Open hearth furnaces--Operation 2. Air blast--Test methods

BANNYKH, A.M., prof.; BEZDENEZHNYKH, A.A., dots.; ZUTS, K.A., dots.

Scientific research carried out in 1957 at the Department of Metallurgy of the Magnitogorsk Metallurgical Institute. Izv.vys. ucheb. zav.; chern.met no.9:161-164 S '58. (MIRA 11:11)
(Magnitogorsk--Metallurgical research)

SOV/133-59-2-5/26

AUTHORS: Voronov, F.D., Engineer,
Dikshteyn, Ye.I.,
Zuts, K.A., Candidate of Technical Sciences, Docent
Trifonov, A.G.

TITLE: An Experience in Converting a 400 Ton Open Hearth Furnace to Firing with Sulphurous Fuel Oil (Opyt perevoda 400-t martenovskoy pechi na sernistyy mazut)

PERIODICAL: Stal', 1959, Nr 2, pp 112-116 (USSR)

ABSTRACT: The Magnitogorsk Metallurgical Combine was designed with a balanced fuel economy i.e. coal was delivered only for coking and the coke oven and blast furnace gases should be sufficient for all other fuel requirements. However, an improvement in the operation of blast furnaces lead to a considerable decrease in the coke consumption and thus to a decrease in the output of coke oven gas. Moreover, the calorific value of blast furnace gas decreased from 944 K cal/m^3 in 1952 to 866 K cal/m^3 in 1957 and its consumption for heating blast increased as much higher blast temperatures are used. In addition some new gas

Card 1/3

An Experience in Converting a 400 Ton Open Hearth Furnace to Firing with Sulphurous Fuel Oil

consumors were introduced (sheet rolling mill etc.) so that a wider use of fuel oil became necessary. A description of the transfer of a 400 ton open hearth furnace from firing with a mixture of coke oven and blast furnace gas to oil firing and operational results obtained is given. The design of the furnace remained the same only the design of parts was modified. Oil was supplied through two injectors placed outside of the casing. The two oil flames from both sides of the gas part unit into one flame at a distance of 1 m from the injectors (Fig.2). Air is being blown by a fan via former gas conduit. The following operational results were obtained: consumption of conventional fuel 105 kg/t of steel instead of previous 130 kg/t; mean duration of heat 12 hrs 15 min instead of 13 hours; the durability of regenerators to the first hot repairs 274 heats instead of 170; the volume of the regenerators changed during small cold repairs 260 m^3 instead of 350 m^3. However, due to high sulphur content of oil (about 2%) a noticeable increase of the transfer

SOV/133-59-2-5/26

An Experience in Converting a 400 Ton Open Hearth Furnace to Firing with Sulphurous Fuel Oil

of sulphur to the metal bosh was observed. For this reason smelting of steels in the furnace was limited to grades with the permissable sulphur content of 0.045%. There are 9 figures.

ASSOCIATION: Magnitogorskiy Metallurgicheskiy Kombinat i Magnitogorskiy Gorno-metallurgicheskiy Institut
(Metallurgical Combine and Magnitogorsk Institute of Mining Metallurgy)

Card 3/3

ZUVAC, V.

Apparatus for detecting defects in ground cables. p. 322.

ENERGETIKA. (Ministerstvo paliv a energetiky. Hlavni sprava elektraren) Praha.

Vol. 5 no. 8, Aug. 1955

East European Accessions List Vol. 5 No. 1 Jan. 1956

MARETIC, Z.; MARETIC-SISUL, N.; RADEJ, I.; SENKER, K.; VINCE, V.; ZUVIC, M.

The epidemic of acute gastroenterocolitis caused by staphylococcal enterotoxin in 1956 in Pula. Higijena, Beogr. 12 no.2/3:240-250 '60.
(STAPHYLOCOCCAL INFECTIONS epidemiol)
(GASTROENTERITIS microbiol)

ZUY, V.D., Cand Agr Sci -- (diss) "The variability of the fat content of milk in cows in connection with the feed of components of green conveyer." Kiev, 1958. 13 pp (Min Agr UkSSR. Ukrainian Acad Agr Sci). 100 copies.

(KL, 12-58, 100)

ZUY, V.V.; IVANYUK, S.S.; YAKOVLEV, I.F.

Effect of aminazine on the anesthetic action of certain drugs.
Vrach. delo no.1:97 '59. (MIRA 12:4)

1. Kafedra farmakologii (zav. - dots. N.P. Skakun) Ternopol'skogo instituta.

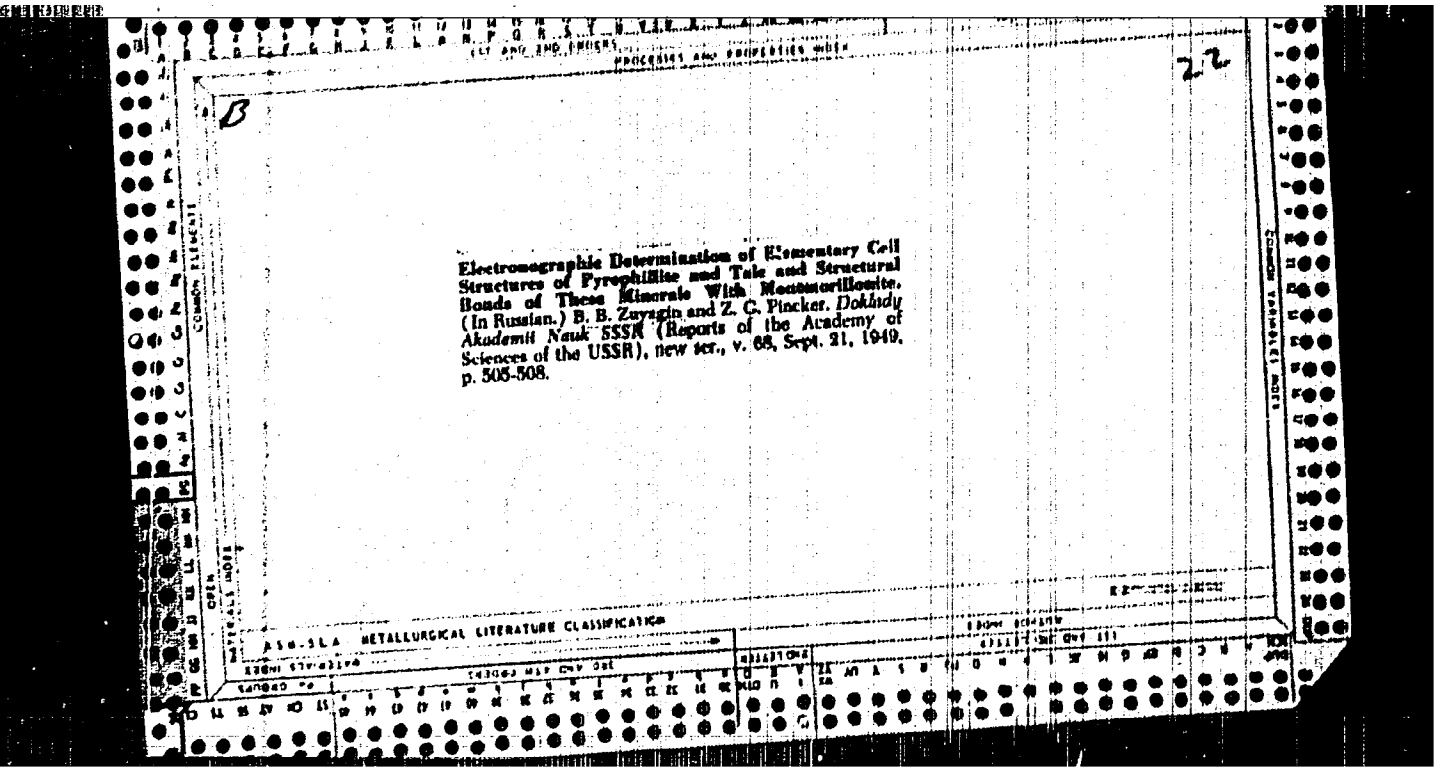
(CHLORPROMAZINE)
(ANESTHESIA)

ZUYAGIN, B. B. Y PINSKER, Z. G.

26980

Epektrono-Graficheskoe Issledovanie Stukturi Mont-Morillonita, Doklady Akad. Nauk SSSR, Novaya Seriay, T. LXVIII, No. 1, 1949, S. 65-67. - B ibliogr: 5 Nazv.

SO: LETOPIS NO. 34



Electromographic Determination of Elementary Cell Structures of Pyrophillite and Talc and Structural Bonds of These Minerals With Montmorillonite. (In Russian.) B. B. Zvyagin and Z. G. Pinsker. *Doklady Akademii Nauk SSSR* (Reports of the Academy of Sciences of the USSR), new ser., v. 68, Sept. 21, 1949. p. 505-508.

ZUYAKOV, G.

A serious warning. Prom. koop. 13 no.4:40 Ap. '59.
(MIRA 12:6)

(Rostov-on-Don--Cooperative societies)

ZUYAKOV, G.

Great and honorable obligation. Prom. koop. no.9:15 S '57.
(Cooperative societies) (MLRA 10:9)

DETLAF, T.A.; ZUYCHENKO, S.I.

Metaphase of the first maturation division in the oocytes of sturgeons. Dokl. AN SSSR 152 no.1:246-248 S '63. (MIRA 16:9)

1. Institut morfologii zhivotnykh im. A.N.Severtsova AN SSSR. Predstavleno akademikom Yu.A.Orlovym.
(Fishes--Eggs) (Karyokinesis)

PODLEVSKIY, A.V.; KOGAN, V.Ya.; GORCHAKOVA, Yu.P.; YELIZAROVSKIY, G.I.; RYABOSHAPKA, A.P.; REZNIK, S.R.; GOLUBEV, T.I.; GINTSE, L.A.; RASKIN, M.M.; ZUYENKO, P.G.; KHOMIK, S.R.; KATSNEL'SON, I.A.; ZHILIN, S.I.; LYSENKOV, M.N.; ROMANOV, B.G.; SAVELIKOV, D.A.; GIL', L.T.; LEVINA, Ye.S.; VOVKI, A.S.; POSLEDOV, F.F.

Annotations. Zhur.mikrobiol.,epid.i immun. 32 no.12:120-125 D '61. (MIRA 15:11)

1. Iz Leningradskogo instituta usovershenstvovaniya vrachey imeni Kirova (for Podlevskiy). 2. Iz Ukrainskogo nauchno-issledovatel'skogo instituta kommunal'noy gigiyeny (for Kogan). 3. Iz Voronezhskogo meditsinskogo instituta (for Gorchakova). 4. Iz Arkhangel'skogo meditsinskogo instituta (for Yelizarovskiy). 5. Iz Kiyevskogo instituta epidemiologii i mikrobiologii (for Ryaboshapka, Reznik). 6. Iz zavoda meditsinskikh preparatov Leningradskogo myasokombinata imeni S.M.Kirova (for Golubev). 7. Iz Gosudarstvennogo kontrol'nogo instituta meditsinskikh biologicheskikh preparatov imeni Tarasevicha (for Gintse). 8. Iz Chitinskogo instituta epidemiologii, mikrobiologii i gigiyeny (for Raskin). 9. Iz Ternopol'skogo meditsinskogo instituta (for Zuyenko). 10. Iz Rostovskogo instituta epidemiologii, mikrobiologii i gigiyeny (for Khomik). 11. Iz Chelyabinskogo meditsinskogo instituta (for Gil', Levina, Vovki, Posledov).

(IMMUNOLOGY--ABSTRACTS) (EPIDEMIOLOGY--ABSTRACTS)

ZUYENKOV, A.I., starshiy prepodavatel'

Some problems in assembling and using milking parlors. Sbor. nauch. trud. Ivan. sel'khoz. Inst. no.19:116-119 '62. (MIRA 17:1)

1. Kafedra mekhanizatsii i elektrifikatsii sel'skokhozyaystvennogo proizvodstva (zav. - dotsent Ye.M. Moiseyev) Ivanovskogo sel'skokhozyaystvennogo instituta.

SHUGAYLO, V.T.; ZUYENKO, P.G.

Outbreak of ornithosis at a bird station in Kremenets. Zhur. mikrobiol., epid. i immun. 40 no. 8:141-142 Ag '63. (MIRA 17:9)

1. Iz Ternopol'skogo meditsinskogo instituta i Oblastnoy sanitarno-epidemiologicheskoy stantsii.

DYMARSKIY, Ya.S., kand.tekh.nauk, inzh.-kapitan 2-go ranga; ROZENBERG, V.Ya., inzh.-kapitan 3-go ranga; PALKIN, V.K., inzh.-kapitan 1-go ranga; ZUYENKO, S.P., kapitan 1-go ranga

Reviews. Mor. sbor. 49 no.11:92-96 N '65. (MIRA 18:12)

SAFAR'YANTS, E.; ZUYEV, A.

Device for the automatic AK-40 machine. Mias.ind. SSSR 34 no.3: 48 '63. (MIRA 16:7)

1. Ashkhabadskiy myasokombinat.

ANIN, B.; ZUYEV, A.

The future starts today. Zdorov'e 7 no.10:16-17 O '61. (MIRA 14:10)

(LABOR AND LABORING CLASSES--DWELLINGS)

ZUYEV, A.

Improve the design of electromagnets for bridge crane brakes. Bezop. truda v prom. 5 no.3:31 Mr '61. (MIRA 14:3)

1. Inzhener po tekhniki bezopasnosti Orskogo zavoda metallokonstruktsiy.
(Electromagnets)
(Cranes, derricks, etc.—Brakes)

ZUYEV, A.

See this motion picture. Za bezop. dvizh. no.5:16 O '58.
(MIRA 11:12)
(Drinking and traffic accidents)

ZUYEV, A.

From the history of traffic. Za bezop. dvizh. no.2:16 Jl '58.
(MIRA 11:12)

(Moscow--Traffic regulations)

ZUYEV, A.

By one's own means. Za bezop. dvizh. no.6:3-4 N '58. (MIRA 11:12)

(Service stations)

ZUYEV, A.B.

Die casting of aluminum alloys at reduced temperatures. Mashino-stroitel' no.5:32 My '60. (MIRA 14:5)
(Die casting)

MASLOKEVICH, A.V., inzh.; ZUYEV, A.B., inzh.

Selecting a rate of pressure during die casting. Lit. proizv. no.7:43 Jl '65. (MIRA 18:8)

25(1) SOV/117-59-6-11/33

AUTHOR: Zuyev, A.B.

TITLE: Reducing Spoilage of Cast Aluminum Parts

PERIODICAL: Mashinostroitel', 1959, Nr 6, p 21 (USSR)

ABSTRACT: Information is given on a new way of casting motorcycle pistons of aluminum alloy with a silicon content of 16 to 18% into chill moulds at the Minskiy motovelozavod (Minsk Motorcycle and Bicycle Plant). To prevent contamination of the alloy by oxide films, the teeming furnace "PK-40" was improved. Its bath was devided into two parts in the ratio of 5 : 1 (of the volume of molten alloy), as shown in a diagram. The greater part of the bath is situated on the side of the charge window and represents a reservoir out of which the metal, through an aperture in the lower part of the partition, enters the teeming well. The smelting of the charge takes place in a separate smelting furnace. The smelt is refined in this furnace with zinc chloride (0.1% of the

Card 1/2

Reducing Spoilage of Cast Aluminum Parts

charge) and poured into the teeming furnace, where the metal is again refined at a temperature of 750 to 780° C. After the reconstruction of the furnace, the spoilage of castings due to hard non-metal inclusions was completely eliminated. The old gate system was changed in order to diminish spoilage caused by blow holes. After these changes, the spoilage of castings fell to 6 to 8% of the total. There is 1 diagram.

Card 2/2

ZUYEV, A.B.

Increasing the output of machines for die casting.
Mashinostroitel' no.9:11 S '62. (MIRA 15:9)
(Die casting--Equipment and supplies)

ZUYEV, A.B., inzh.

Adjusting spouts to compression chamber nozzles in pressure die-casting machines. Mashinostroitel' no.7:33 Jl '59. (MIRA 12:11)

(Foundry machinery and supplies)

82745
S/117/60/000/005/006/013
A004/A002

18.5200

AUTHOR: Zuyev, A. B.

TITLE: Pressure Die Casting of Aluminum Alloys at Low Temperatures

PERIODICAL: Mashinostroitel', 1960, No. 5, p. 32

TEXT: At the Minskiy motovelozavod (Minsk Motorized Bicycle Plant) a new technological process of aluminum alloy pressure die casting was thoroughly investigated and introduced, which is effected at temperatures close to the lower boundary of the crystallization range. From the melting furnace the refined alloy is poured over into the distributing furnace where it is, with the aid of added cold ingots, cooled to a pulpy state, i. e. down to 540-550°C. With a special shovel the alloy is then placed in the barrel of the pressure chamber of the pressure die casting machine and subjected to pressing. This process takes an intermediate position between pressure die casting and die pressing. The pressing rate is controlled during the operation process. The new pouring technology made it possible to cut down spoilage because of gaseous porosity and hot cracks, and increased the density of the castings. The durability of the press-mold increased considerably and reached 70,000-80,000 pressings.

Card 1/1

ZUYEV, A.B.

Reducing waste in casting aluminum parts. Mashinostroitel' no.6:21 Je '59. (MIRA 12:9)
(Molding (Founding))

SOV/117-59-7-17/28

AUTHOR: Zuyev, A.B., Engineer

TITLE: The Fitting of "Mouthpieces" to the Cylinders of Compression Chambers in Diecasting Machines

PERIODICAL: Mashinostroitel', 1959, Nr 7, p 33 (USSR)

ABSTRACT: In diecasting machines with a vertical compression chamber (of the "Polok" type) the connection of the "mouthpiece" to the chamber filling cylinder is a source of trouble: the "mouthpiece" under conditions of high pressure is displaced into the cylinder, and this causes the jamming of the bottom piston. The short article explains how this problem has been solved. In the new mouthpiece connection, the cylinder wall is bored only to less than half of its thickness to the full diameter of the "mouthpiece", so as to form a shoulder in the cylinder wall bore and prevent the "mouthpiece" from moving further. There is 1 diagram.

Card 1/1

ZUYEV, A.B.; MASYUKEVICH, A.V.; SHILOV, V.V.

Equipment for automatic temperature regulation of die-casting molds.
Mashinostroitel' no.10:6-7 O '65. (MIRA 18:10)

ZUYEV, A.D.

Role of the Communist Youth League in the drive of young people for economy in industry in the fourth five-year plan. Uch. zap.KHGU 62:141-157 '55. (MLRA 10:7)
(Communist Youth League) (Efficiency, Industrial)

69441
S/139/60/000/01/015/041
E201/E491

24.7900

AUTHORS: Sinyakov, Ye.V., Avramenko, V.P., Kudzin, A.Yu. and Zuyev, A.F.

TITLE: Investigation of Magnetic Properties of Certain Mixed Ferrites

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1960, Nr 1, pp 80-86 (USSR)

ABSTRACT: The authors investigated magnetic properties of the following mixed ferrite systems:

$nNiAl_2O_4 - 100NiFe_2O_4$ (I) $nCoAl_2O_4 - 100NiFe_2O_4$ (II)

$nNiMn_2O_4 - 100NiFe_2O_4$ (III) $nCoFe_2O_4 - 100MnFe_2O_4$ (IV)

where $n = 0.5, 1, 3, 5, 10, 15, 20, 30, 40$ and is the molar ratio. In these systems one of the components is non-ferromagnetic ($NiAl_2O_4$, $CoAl_2O_4$ and $NiMn_2O_4$), except in the case of IV where both components are ferromagnetic. Samples were prepared employing the usual ceramic techniques; oxides or carbonates of "pure" and "pure for analysis" grades were used. Samples were

69441
S/139/60/000/01/015/041
E201/E491

Investigation of Magnetic Properties of Certain Mixed Ferrites

annealed at 1380°C for two hours or at 1420°C for one hour. X-ray diffraction patterns showed that all ferrites had spinel structure and were solid solutions (Table 1). The following properties were investigated; the temperature dependences of the initial permeability μ_o, of tan δ and of spontaneous magnetization; the dependences $B = f(H)$, and $\mu = f(H)$; the coercive force and the Curie point. The concentration dependences of μ_o of the saturation magnetization B and of the Curie temperature (Θ) are shown in Fig 1 and 2 for systems I and II respectively. Fig 3 shows the temperature dependence of the Q-factor of coils with toroidal cores made of system I ferrites. Fig 4 gives the temperature dependence of μ_o for system III. Fig 5 and 6 show the concentration dependences of μ_o, of B and of Θ for systems III and IV respectively. It was found that introduction of a non-ferromagnetic component lowers the Curie temperature, reduces the saturation magnetization B and raises the coercive

Card 2/3

S/139/60/000/01/015/041
E201/E491

Investigation of Magnetic Properties of Certain Mixed Ferrites

force. These results can be explained using the theory of antiferromagnetism. For system IV ferrites (with both components ferromagnetic) the law of additive variation of properties with concentration was obtained. The losses in all ferrites were due to magnetic polarity reversal. There are 6 figures, 1 table and 12 references, 5 of which are Soviet, 4 English and 3 translations from English into Russian.

ASSOCIATION: Dnepropetrovskiy gosuniversitet (Dnepropetrovsk State University)

SUBMITTED: September 19, 1958

Card 3/3

ZUYEV, A.F.

Semiconductor d.c.amplifier for an electric drive. Avtom. i prib. no.1: 84-85 Ja-Mr '63. (MIRA 16:3)

1. Dnepropetrovskiy filial Instituta avtomatiki Pridneprovskogo soveta narodnogo khozyaystva.
(Amplifiers (Electronics))

1. A. G. ZUYEV

2. USSR (600)

4. Cattle Breeds

7. Raising the quality of young Kholmogory breading stock. Sots. zhiv. 14 no. 12. 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

DUBININ, M.M.; ZUYEV, A.G.

Adsorptive properties and structure of silica- and alumina-gel. C.R. Acad. Sci. U.R.S.S. '49, 69, 209-212. (MLRA 2:10)
(BA -AI My '53:420)

S/143/60/000/004/006/007
A163/A026

AUTHORS: Zuyev, A.I., Candidate of Technical Sciences; Koptelov, Yu.K., Engineer; Sorokin, A.F., Professor, Doctor of Technical Sciences

TITLE: A New Method of Drying Coatings of Communication Cables With Stiroflex Insulation

PERIODICAL: Energetika, 1960, No. 4, pp. 104 - 112

TEXT: The article deals with a new method of drying paper coatings of communication cables with stiroflex (a plastic version of polystyrene) insulation. The author presents a new radiation-convection drying installation tested under laboratory conditions; and a semi-commercial drier designed for radiation-convection drying and recommended as a basic design for future commercial drying installations. At present, paper coatings are dried in vacuum boilers at a temperature of 65 - 70°C and a pressure of 40 - 60 mm Hg. This process of drying is applied because of the low thermal resistance of stiroflex. When heated beyond 70°C it loses its plastic properties. Since this method has a number of shortcomings, the laboratory of the Department of Promteplotekhnika has developed a number of various experimental installations. One of these installations is used for radiation, as well as for radiation-convection drying. For radiation

Card 1/4

A New Method of Drying Coatings of Communication Cables With Stiroflex Insulation

the installation has a ceramic cylindrical radiator with an inside diameter of 45 mm; on its outside it is wound with a 0.8 mm nichrome wire. The temperature was regulated with a laboratory transformer. The maximum temperature of the radiator surface was 650°C. To heat the air, an electronic heater with one adjustable and three non-adjustable sections was installed. During the tests, the air temperature varied from room temperature to 100°C. To measure the temperature of the coating paper, and also of stiroflex, copper-constantan thermocouples were used, the readings of which were fixed with a ППТ-4 (PP-4) potentiometer and recorded on photo paper. The coating paper was then processed in exsiccators before subjecting it to an initial dampness ranging from 6 - 10%. Each series of experiments was carried out by starting with the same initial moisture. After that the paper was rolled onto a 300-mm-long cable pattern and was alternately exposed to infrared radiation and air blasts. Radiation times varied from 1 to 3 sec, those of air blasts from 4 to 5 sec. With a radiation of 2 sec, an air blast of 5 sec at a temperature of 530°C, an air temperature of 25°C and an air speed of 1.5 m/sec the temperature of stiroflex did not exceed 68°C. The author came to the conclusion that the speed of the air blast must not exceed 3.5 - 4 m/sec. In order to check the results of the above laboratory experiments, a

S/143/60/000/004/006/007
A163/A026

A New Method of Drying Coatings of Communication Cables With Stiroflex Insulation

semi-industrial continuous drier was developed, in which ceramic panels with electric heating were used as radiators. A diagram of the new drier is presented in Figure 6. The results of tests carried out with the new installation confirmed the effectiveness of the laboratory method of drying paper coatings. A total of more than 2,000 km of MKCB (MKSB) cables were turned out with the new drier. The average specific resistance was 20,000 megohm/km, at a norm of 10,000 megohm/km. The new method is suitable for all cables on which only the "belt" insulation has to be subjected to drying; and for those materials of which only the surface layers are to be dried without overheating the inside layers. The semi-commercial drier - used also for lead platings - will serve as a basic design for the production of commercial-type drying installations. There are 6 figures and 6 Soviet references.

ASSOCIATION: Ivanovskiy energeticheskiy institut imeni V.I. Lenina (Ivanovo Power Engineering Institute imeni V.I. Lenin)

PRESENTED: by the Department of the Promteplotekhnika

Card 3/4